

Causal factors of customer-based brand equity affecting The customer engagement for gas station service business

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Abstract

This article aimed 1) to study the causal factors affecting customer-based brand equity and customer engagement in the gas station service business, 2) to study the influence of causal factors of customer-based brand equity affecting customer engagement in the gas station service business, and 3) to develop a model the causal factors of customer-based brand equity affecting customer engagement in the gas station service business. A researcher collected data from interviews with gas station businesses and online surveys from customers who use gas station services from May 2017 to July 2017. They collected data from a sample group of 500 participants. The results of the analysis concluded that marketing mix 7Ps affected customer-based brand equity, marketing mix 7Ps affected customer engagement through customer-based brand equity, marketing orientation affect customer-based brand equity, marketing orientation affected customer engagement through customer-based brand equity, brand experience affected on customer-based brand equity, brand experience affected customer engagement through customer-based brand equity, and customer-based brand equity affected customer engagement. Gas station businesses can develop marketing strategies focusing on branding, market targeting, product relevance, and customer engagement to identify the value of their brands from the customer's perspective. These strategies can be utilized to enhance

customer engagement, competitiveness, and market position within the industry.

Keywords: Marketing Mix 7Ps, Marketing Orientation, Brand Experience, Customer-Based Brand Equity, Customer Engagement

1. Introduction

The gas stations in Thailand play a crucial role in the transportation infrastructure and services for motorists and other vehicles. They are distributed throughout the country, and customer service and satisfaction are often key focal points in the operation of gas station service business. Creating a friendly atmosphere and maintaining cleanliness are essential to attracting customers. Therefore, providing fast and efficient service is a significant factor in enhancing customer satisfaction and encouraging repeat business in the future. Issues and their importance for gas station service business in Thailand include complaints regarding service and product quality. This emphasizes the marketing mix of 7Ps, market orientation, and brand experiences as variables that affect customer engagement for gas station businesses. This has led researchers to study the customer-based brand equity to increase customer engagement.

Research has been conducted by Roberts et al. (2003), Harris and Goode (2004), Kuenzel and Halliday (2008), Kumar et al. (2010), and Lemon and Verhoef (2016). The researchers collected data from gas station businesses, categorizing them into three types: 1) PTT Oil stations, 2) PT Oil stations, and 3) Bangchak Oil stations. Data was gathered through interviews with gas station businesses and online surveys from customers using gas station service business from May 2024 to July 2024. The qualitative population comprised six selected businesses based on the categorization of gas station service business, while the quantitative population consisted of 400 customers using gas station service business, calculated for data analysis using structural equation modeling techniques.

The expected benefits are that gas station businesses can develop plans regarding marketing mix of 7Ps, marketing orientation, and brand experience. This will enable gas station service business to identify customer-based brand equity, as well as enhance customer engagement and competitiveness within the industry.

This research article presents a study based on the application of systems theory to explore empirical variables that influence customer-based brand equity from the customer's viewpoint and customer engagement. The researchers believe that the findings of this study will be significant for gas station businesses, as well as offer academic benefits for scholars, researchers, and students who can use the

empirical results to develop integrated approaches and further academic studies.

2. Research Objectives

1) To study the causal factors affecting customer-based brand equity and the customer engagement for gas station service business.

2) To study the influence of causal factors of customer-based brand equity affecting the customer engagement for gas station service business.

3) To develop a model the causal factors of customer-based brand equity affecting the customer engagement for gas station service business.

3. Literature Review

The concepts and theories used in the research encompass the marketing mix 7Ps, marketing orientation, brand experience, customer-based brand equity, and customer engagement. As mentioned in the background and significance of the problem, these are the variables that define the conceptual framework. The examination of the relationships between these variables is as follows:

Hypothesis 1: The relationship between marketing mix 7Ps and customer-based brand equity

Munawar et al. (2021) aimed to enhance understanding of customer lifetime value, marketing mix, and customer-based brand equity literature by synthesizing information from various relevant sources.

Jaya et al. (2024) address a significant gap in understanding audience behavior by exploring the complex relationships between purchase intention, electronic word-of-mouth (e-WOM), perceived value, marketing mix, and customer-based brand equity.

Mallik and Aithal (2024) employed a qualitative approach, drawing from multiple case studies and industry insights to illustrate the actions and impacts of purposeful branding. They examine how organizations strategically position themselves within the digital landscape.

Hypothesis 2: The relationship between marketing mix 7Ps and customer engagement through customer-based brand equity

Chatterjee (2018) assessed the relationship between the service marketing mix and customer-company identification, focusing on its impact on building long-term relationships with customers. This research concentrated on the banking industry in India, aiming to identify how customer-company

identification influences loyalty, commitment, and a sense of community.

Napontun et al. (2023) explored the influence of marketing mix elements on audience interest and engagement in sports competitions. Their findings are intended for sports event managers to develop targeted strategies that enhance audience interest and participation, ultimately enriching the sports experience and contributing to industry growth.

Hypothesis 3: The relationship between marketing orientation and customer-based brand equity

Amoako (2019) examined how customer value mediates the relationship between relationship marketing and company value, as well as how customer-based brand equity mediates the connection between relationship marketing and company value within the telecommunications industry in Ghana.

Hannan (2019) noted that transactional marketing has dominated the marketing landscape for over four decades. However, with the current trend of globalization in business, there is a shift from a marketing mix paradigm to a focus on relationship marketing.

Hajidimitriou et al. (2020) highlighted that brand innovation (BI) is one of the most critical issues in brand management. However, it has not been sufficiently explored, resulting in a significant research gap due to the lack of a clear framework for understanding BI.

Hypothesis 4: The relationship between marketing orientation and customer engagement through customer-based brand equity

Shahid and Ayaz (2018) investigated how organizations can foster customer engagement through market orientation, personalization, and multichannel marketing. This study contributes to the literature by elucidating the impact of inbound marketing themes on customer engagement.

Shamsudin et al. (2020) measured the relationship between market orientation and customer engagement in relation to customer satisfaction in the banking sector. Their recent findings revealed that nearly half of bank customers are disinterested in establishing relationships with other banks where they currently hold loans or deposits.

Wahyuni and Sara (2020) developed an operational model of innovation based on the roles of market orientation and customer engagement. Their market-focused practices through customer involvement can help companies achieve better innovation performance.

Hypothesis 5: The relationship between brand experience and customer-based brand equity

Amer et al. (2023) noted that the roles of new experiences in luxury fashion branding and credibility on customer-based brand equity have not been sufficiently empirically explored. Their study presents a model that examines the relationships between brand experience, brand authenticity, and customer-based brand equity.

Rahmawati and Hidayati (2023) analyzed how social media marketing activities (SMMA) influence customer-based brand equity in Muslim fashion brands among Gen Z. Additionally, the study aims to define the mediating roles of brand experience and brand trust in the relationship between SMMA and customer-based brand equity.

Ruangkanjanases et al. (2023) addressed a research gap by integrating the theory of co-creation to examine the roles and mechanisms of co-creation resulting from consumer engagement on short-form video platforms. This includes both organization-initiated and customer-initiated co-creation of value.

Hypothesis 6: The relationship between brand experience and customer engagement through customer-based brand equity

Japutra et al. (2023) explored how values (such as personal and social values) influence customer engagement after addressing service failures in a specific context.

Rathnayaka and Dissanayake (2023) aimed to analyze the impact of sensory brand experiences on customer brand engagement, drawing from embodied perception theory and the brand love triangle theory.

Shahrokh et al. (2023) studied the mediating role of customers' online brand experiences in the relationship between brand engagement and both brand satisfaction and brand loyalty on social media platforms.

Hypothesis 7: The relationship between customer-based brand equity and customer engagement

Hasan et al. (2022) noted that social media has been regarded as one of the most complex and widely used tools in marketing.

Bapat and Hollebeek (2023) explored the relationships between perceived quality value, cognitive value, social value, price value, customer engagement, and customer-centric customer-based brand equity.

Gundona et al. (2023) examined the relationships among customer engagement, customer-based customer-based brand equity, and brand market performance in the bitters alcohol industry in Ghana.

4. Research Framework

This research employs both qualitative and quantitative methods. The researcher has established the research framework based on systems theory, summarizing the components of the system as follows:

(1) Inputs, (2) Processes, (3) Outputs, and (4) Feedback.

(1) Input refers to the marketing mix of 7Ps, which includes seven components: 1) Product, 2) Price, 3) Place, 4) Promotion, 5) People, 6) Process, and 7) Physical Evidence. Market orientation consists of three elements: 1) Customer Orientation, 2) Competitor Orientation, and 3) Interfunctional Cooperation. Brand experience is composed of three aspects: 1) Brand Identity, 2) Emotional Connection, and 3) Brand Culture.

(2) Process refers to the customer-based brand equity, encompassing four components: 1) Brand Awareness, 2) Perceived Quality, 3) Brand Associations, and 4) Brand Loyalty.

(3) Output refers to customer engagement, which consists of three elements: 1) Multichannel Communication, 2) Listening and Feedback, and 3) Recognition and Acceptance.

(4) Feedback indicates that customer engagement, as an output, has a reciprocal effect on the 7Ps of the marketing mix, market orientation, and brand experience.

The four components are interrelated, and none can exist in isolation. A change in one component will inevitably affect the others; any deficiencies or errors in one component will lead to shortcomings in the others. The details are as follows:

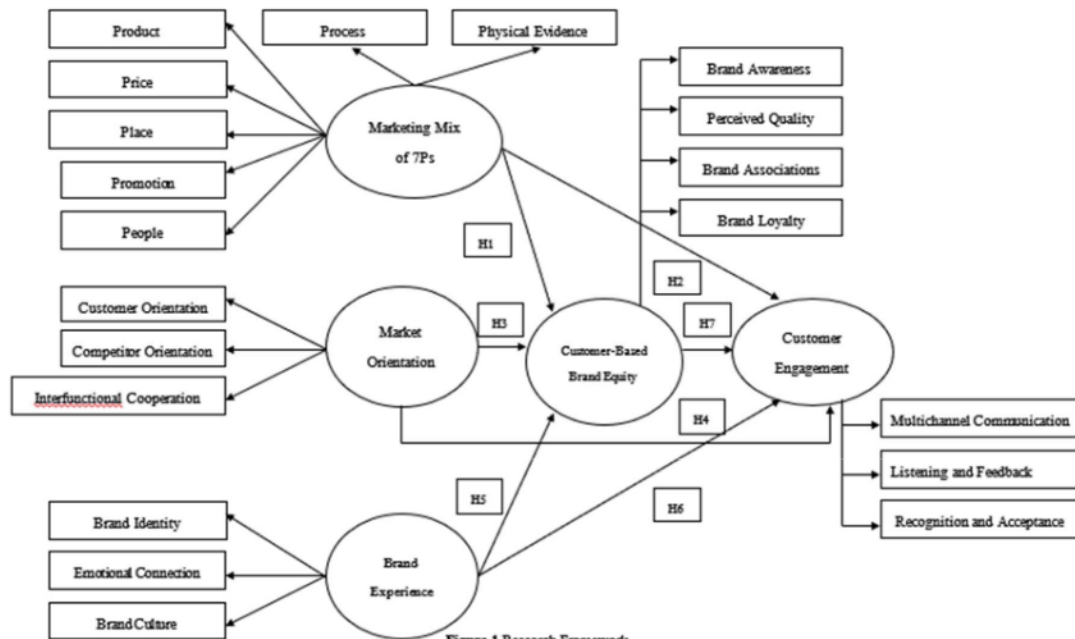


Figure 1 Research Framework

5. Research Methodology

This research employs a mixed-methods approach, focusing on data collection from gas station businesses, which are categorized as follows: 1) Gas stations operated by PTT, 2) Gas stations operated by PT, and 3) Gas stations operated by Bangchak.

The population for this study consists of customers using gas station services, which is infinite. The sample includes 400 gas stations, selected using Structural Equation Modeling (SEM) techniques. According to the research framework, there are 5 latent variables and 20 observed variables. Statisticians recommend that the sample size should be between 15 to 20 times the number of observed variables (Hair et al., 2006) to ensure an adequate size for multivariate analysis. Therefore, an appropriate and sufficient sample size should range from 300 (15 x 20) to 400 (20 x 20). In this case, a sample of 400 was chosen for greater accuracy in the analysis.

The research tools consist of two types.

1) The questionnaire consists of the following sections: Section 1: General information about the organization of the respondents, Section 2: The marketing Mix of 7Ps, Section 3: Market Orientation, Section 4: Brand Experience, Section 5: Customer-Based Brand Equity, and Section 6: Customer Engagement.

The researchers provided a draft of the questionnaire to 5 experts for evaluation. The Index of Item-Objective Congruence (IOC) was calculated at 0.948, and the reliability of the research tool was tested, resulting in a reliability score of 0.899. These measures are intended to study the causal factors of customer-based brand equity and their impact on customer engagement in gas station businesses.

2) Interview Questions:

- What do you think about the overall marketing mix (7Ps) in gas station businesses, and what factors does it impact?
- Do you think gas stations should apply market orientation to create customer-based brand equity? What factors does it affect?
- What do you think about the overall experience creation for brand engagement in gas stations, and what factors does it impact?
- How are the marketing mix (7Ps), market orientation, and brand experience related overall?
- Does your organization consider customer-based brand equity, and in what ways?
- Do you think customer-based brand equity directly impacts customer engagement? How?
- To increase customer engagement, what variables do you think have direct and indirect impacts? How?

The researcher collected data through in-depth interviews conducted between May 2024 and July 2024. The data was then analyzed and synthesized, followed by descriptive narration and content analysis to develop the model derived from the quantitative aspect.

6. Research Results

Objective 1	Research Findings
Marketing mix 7Ps	The respondents rated the overall marketing mix (7Ps) as "high," with five specific aspects also rated as "high." The highest rating was for strategic planning, followed by marketing, finance, and information technology.
Marketing orientation	The respondents rated the overall market focus as "high," with four specific aspects also rated as "high." The highest opinion was regarding customer

	intent, followed by demographic information, behavior, and psychology.
Brand experience	The respondents generally rated the brand equity from the customer's perspective as "high," with two aspects rated as "very high" and four aspects rated as "high." Notably, the respondents expressed the highest opinion regarding the trustworthiness of information, followed by concerns about privacy, social media usage, perceived credibility, and safety on social media.

Customer-based brand equity	The respondents generally rated the brand equity from the customer's perspective as "high," with two aspects rated as "very high" and four aspects rated as "high." Notably, the respondents expressed the highest opinion regarding the trustworthiness of information, followed by concerns about privacy, social media usage, perceived credibility, and safety on social media.
Customer engagement	The respondents generally expressed a high level of opinion regarding customer engagement, with one aspect rated as "very high" and three aspects rated as "high." Specifically, the respondents indicated the highest level of opinion in terms of trust, followed by engagement, commitment, and satisfaction.

Objective 2	Research Findings
Marketing mix 7Ps (MSC)	Has a direct positive influence on customer-based brand equity (GMSM) with a direct influence size of 0.15, which is a statistically significant influence at the level of 0.05.
Marketing mix 7Ps (MSC)	Has a direct positive influence on customer engagement (CEG) with a direct influence size of 0.11, which is a statistically significant influence at the level of 0.05.
Marketing orientation	Has a direct positive influence on customer-based brand equity (GMSM) with

(OSC)	a direct influence size of 0.40, which is a statistically significant influence at the level of 0.01.
Marketing orientation (OSC)	Has a direct positive influence on customer engagement (CEG) with a direct influence size of 0.13, which is a statistically significant influence at the level of 0.05.
Brand experience (OCS)	Has a direct positive influence on customer-based brand equity (GMSM) with a direct influence size of 0.47, which is a statistically significant influence at the level of 0.01.
Brand experience (OCS)	Has a direct positive influence on customer engagement (CEG) with a direct influence size of 0.10, which is a statistically significant influence at the level of 0.05.

Customer-based brand equity (GMSM)	Has a direct positive influence on customer engagement (CEG) with a direct influence size of 0.93, which is a statistically significant influence at the level of 0.01.
Marketing mix 7Ps (MSC), Marketing orientation (OSC), and Brand experience (OCS)	Has an indirect positive influence on customer engagement (CEG) through customer-based brand equity (GMSM), with indirect influence sizes of 0.19, 0.37, and 0.43, respectively, which are statistically significant at the level of 0.01.

Objective 3: The research findings revealed that the development of the model based on exploratory analysis and synthesis led the researcher to name the model of brand equity affecting customer engagement as the Brand Equity for Customer Engagement Model (BECE Model).

Brand Equity for Customer Engagement Model



Figure 2 Brand Equity for Customer Engagement Model

7. Conclusion

The article highlights the importance of gas stations in Thailand as a key part of the transportation infrastructure and services for vehicle users. Customer service and satisfaction are critical factors in the operation of these businesses, particularly given the issues related to service complaints and product quality. The research involved interviews with gas station businesses and online surveys from customers. The findings indicate that the marketing mix (7Ps) significantly impacts customer-based brand equity and customer engagement. Additionally, market orientation and the creation of brand experience also influence both customer-based brand equity and customer engagement. Consequently, gas stations can develop strategies focusing on the marketing mix, market orientation, and brand experience to better identify customer-based brand equity from the customers' viewpoint, enhance customer engagement, and compete effectively within the industry.

8. Discussion

The results from Objectives 1 and 2 indicate that:

- Marketing mix 7Ps plays a crucial role in fostering customer engagement through customer-based brand equity. Each component enhances the overall experience and deepens the connection between customers and the brand. For example, product quality (Product) meets customer needs, appropriate pricing (Price) creates a sense of value, and friendly service (People) builds trust. When combined with effective communication (Promotion) and convenient access (Place), customers perceive higher value and develop sustainable connections with the brand. This aligns with Chatterjee (2018).
- Market orientation significantly impacts customer engagement through customer-based brand equity. By understanding and responding to specific customer needs, customers feel that the brand is valuable and relevant to their lives. When products and services meet expectations, customers develop a sense of ownership and confidence in the brand, leading to loyalty and lasting engagement. Effective communication about the customer-based brand equity and identity further strengthens customer connections and trust, consistent with the findings of Shahid and Ayaz (2018).
- Brand experience significantly influences customer engagement through customer-based brand equity. When companies deliver experiences that effectively meet customer needs and expectations, customers feel connected to the brand and recognize its true value. Memorable experiences encourage pride in brand choice and enhance loyalty. Good communication and service

during these experiences also build trust, strengthening the bond between customers and the brand, as supported by Japutra et al. (2023).

- Customer-based brand equity is crucial for customer engagement. When a brand truly meets customer needs, customers experience a deep connection and pride in choosing that brand. The ability of the brand to fulfill needs and provide positive experiences fosters confidence and loyalty, leading customers to repurchase and recommend the brand to others. Additionally, these values help establish a strong brand image in the minds of customers, as highlighted by Hasan et al. (2022).

From the findings of research objective 3, in-depth interviews led to the development of a causal model illustrating the relationship between customer-based brand equity and customer engagement.

9. Research Contribution

The research findings will provide academic insights into the causal factors of customer-based brand equity and their impact on customer engagement in the gas station business. This study enhances the understanding of the relationships that affect various variables related to customer-based brand equity and customer engagement. These insights can be further developed and expanded academically for future studies and applied to other fields. The knowledge gained from this research can serve as a foundation for exploring additional dimensions of customer-based brand equity and customer relationships, ultimately contributing to the broader body of literature in marketing and consumer behavior.

10. Recommendation

Future research should examine the causal model of customer-based brand equity and its impact on customer engagement to assess how well the model aligns with empirical data. Additionally, upcoming studies should investigate other significant factors that may serve as causal elements of customer-based brand equity affecting customer engagement, as many potential factors remain unexplored. For instance, aspects such as Brand Awareness, which reflects the degree to which customers can recognize and recall a brand, influence their perceptions and trust in that brand. Perceived Quality is another important factor, as customers' perceptions of the quality of a brand's products or services can affect their purchase intentions and loyalty. Moreover, the Emotional Connection that a brand establishes with its customers often leads to higher perceived value. Cultural Relevance is also crucial; brands that align with cultural values and trends can create stronger connections with target audiences. Lastly, Social Proof and Reviews, including positive recommendations and reviews from other customers, can enhance a brand's credibility and appeal.

Incorporating these elements into future studies can provide a more comprehensive understanding of the dynamics at play in customer-based brand equity and customer engagement.

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